

Weld-Tutoring Station

Overview

The WeldWatch.EDU package combines the WeldWatch-HD zoom weld camera with a matching touch-screen computer, both on flexible arms that attach to a welding table.

The camera arm allows the camera to be positioned anywhere above the table, without a tripod or cable-clutter on the table. The computer arm allows it to instantly swing out of the way to a safe position when welding.

Instructors often complain about giving demos that only a few students up-front can see. With the EDU package, your demos can be shown on-screen where all can see – especially with an optional big-screen display.

With built-in digital recording, demos can be shown time and again to students. On-screen playback frees the instructor to narrate and engage the students instead of being hidden under a helmet.

Benefits

- Live onscreen views allow instructor demos to be seen by the whole class.
- With students welding, instructors can coach 1-on-1 while watching close-ups of bead and puddle.
- Record both good and bad weld technique for easy review by students.
- Optical zoom allows close-ups of arc, electrode, puddle and joint during the weld.

Movable arms allow easy aiming of weld camera and PC placement.

Applications

- Live demos on big-screen
- Record demos for class
 - Playback slow-motion
 - Recall for later review
- Share / trade demos with other schools
- Encourage student video-making to “learn by teaching”
- **1-on-1 tutoring**
 - Live coaching by instructor watching the close-up screen
 - Replay and review student’s weld with the student
 - Play in slow motion
 - Give student specific skills to practice.



WeldWatch.EDU Technical Details

WeldWatch-HD USB-3 Camera

- 140 dB dynamic range (10,000,000:1)
- Built-in Optical zoom lens
- Auto Exposure
- Auto Focus
- Automatic Iris

PC Hardware

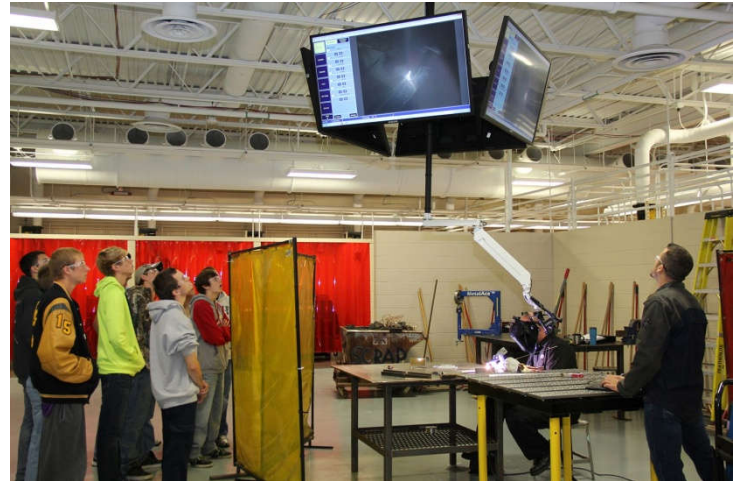
- Locking steel case for PC and keyboard
- Microsoft Surface Pro 4,
 - 12" touch-screen and HD HDMI output for optional giant TV demo screen
 - Built-in disk stores up to 1 hour of demo videos
- USB-3 Hub for expansion hard drive

Recording

- Exclusive auto-record
 - Triggered by Arc-Light
 - Start record 2 sec before arc
 - Stop record 2 sec after arc
- Flexible playback: fast, slow or single step, forwards or backwards
- Export to standard video for viewing or email



WeldWatch Software Screen-Shot



Large overhead demo screens at Blackhawk Technical College. Credit: Beloit Daily News and Blackhawk Technical College.

Features

Camera

- Full Color, resolutions up to 1280 x 1024
- Up to 30 fps (frames-per-second) at 1280 x 800
- Built-in 3x Zoom (12.6mm – 34.6mm)
- All digital processing, no special filters required
- Flexible camera arm and swivel mounts allow shots of all welding angles – even overhead.
- Locking steel case for PC and keyboard

WeldWatch.EDU™ software for schools

- Integrated Recording and Playback
- Separate handling of temporary test videos and “keep” demos
- Self-maintained recording of temporary welds auto-deletes old videos as space is needed